

**Patent Application of
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TITLE OF INVENTION

Mini Plasma Display

CROSS-REFERENCE TO RELATED APPLICATION

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

REFERENCE TO A MICROFICHE APPENDIX

Not Applicable

MINI PLASMA DISPLAY

This is a continuation of application Ser. No. 09/630,089, filed 08-01-00.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to display devices of the gas discharge type, generally classified under 315/169.4 of the U.S. Patent Classification System and light sources under H01J61/96 of IPC. In particular, the inventive concept concerns replacing conventional matrix addressing of the glow discharge pixels in gas plasma display panels with electrical pulse transfer of the localized glow discharge along a recurring path using MEMS (MicroElectroMechanicalSystems) and VLSI (VeryLargeScaleIntegration) technology for fabrication. By the scheme greatly simplified pixel addressing for television interlaced scanning is disclosed for a mini plasma display including low fabrication cost achieved by the advantages of MEMS and integrated circuit process technology.

2. Description of the Prior Art.

Television Technology

In order for a flat screen to be useful for television it must be able to reproduce the functions of interlaced scanning of the conventional cathode ray tube. One main object of the invention is to duplicate the interlaced scanning requirements for television in a flat screen gas discharge display without the need for separately addressing each of the 1225 horizontal and vertical lines of a conventional matrix display. Another main object is to achieve low cost construction for a plasma screen of the miniature type by use of MEMS and integrated circuit fabrication technology

The invention disclosed must meet the following essential technical criteria for interlaced TV scanning:

The standard picture repetition rate is 30 frames per second to accommodate eye-brain persistence. Interlaced scanning of the CRT electron beam means that first the odd-numbered lines, namely, 1, 3, 5, 7, etc., and then the even-numbered lines, 2, 4, 6, 8, 10, etc. are traced. Accordingly, two fields constitute one frame or a field repetition rate of 60 fields per second. Since 525 horizontal lines is the US standard